

society for social responsibility in science

SSRS Newsletter

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Dr. Bauer Addresses SSRS Annual Meeting

Dr. Walter Bauer, of the Greater St. Louis Committee for Nuclear Information, told the SSRS Annual Meeting, at Antioch College, Yellow Springs, Ohio, Sept. 5, 1959, about the founding and work of the CNI, of which he was one of the founders.

The Committee for Nuclear Information started in March 1958 with a letter sent to interested people in the community, over the signature of physicist, biologist, a person from the religious community, and a very active woman in society. Dr. Bauer said, "We had to make a decision at the very beginning, whether we were to be an action group or whether we were to be primarily an information group. We decided . . . that we would best operate by being a purely information group." Dr. Bauer laid a great deal of the success of the group to this decision, which he felt inspired confidence in their findings.

The scientific portion of the Committee had the job of seeking information, digging it out, and trying to put it into a form which the general public could understand. Others had the job of organization and distribution.

The Committee for Nuclear Information first held two scientific seminars at the highest scientific level, to educate the scientific community to the background of fallout, the biological and physical facts involved. These covered six weeks, and attracted a great deal of interest. From those scientists most interested came a speakers bureau of about 40,

who have averaged a talk a week since that time, to groups of all sorts in St. Louis.

The group publishes a bulletin, available by subscription, and supports its work by memberships. So far the work of the committee has been primarily radiation from fallout, and the effects of a nuclear war, but the committee expects to deal with radiation hazards from the peaceful uses of atomic energy.

Dr. Bauer, who is an instructor in surgical pathology at the School of Medicine, Washington University, St. Louis, stated, "There is a great disparity between the advances of the physical sciences and the biological sciences. This disproportion has created a situation in which we need to know biological answers to problems which are only poorly understood. Decisions need to be made, however, on the basis of this poorly understood information, and thereby there are many conflicting statements, depending on which way you take the uncertainties."

Discussing the confusion in the public mind between matters in which scientists must make the decisions and those matters properly in the hands of the lay individual as a citizen, Dr. Bauer went on, "It is a scientific matter to decide what kinds of damage radiation can cause. It is a scientific matter to determine how much damage one can expect at a certain level. When one turns the question to the point 'is a certain level of damage

(Continued on Page 3, Col. 3)

SPECIAL FALLOUT ISSUE

SSRS COUNCIL OPPOSES NUCLEAR WEAPONS

At its meeting in New York City at the home of the President, Victor Paschkis, the Council of the SSRS passed the following resolution:

"The impending French nuclear tests in the Sahara lend immediate urgency to the question of nuclear disarmament. Jules Moch's statement that France will desist from these tests if the nuclear powers relinquish their nuclear armament should be accepted as a challenge to remove the threat of nuclear warfare once and for all. We hope that the governments of the United States, Union of Socialist Soviet Republics, and Great Britain will give serious and careful consideration to this step, removing a danger to the survival of the race."

A copy of the resolution was sent to President Eisenhower, Premier Khrushchev, Prime Minister MacMillan, and President DeGaulle.

SSRS BOOTH AT PEACE FAIR FEATURES FALLOUT

On September 12, at the William Penn Center, a Quaker-sponsored neighborhood center in Fallsington, Pa., the 2nd Annual World Peace Fair attracted more than 2000 people. The SSRS booth, in addition to the SSRS pamphlets, leaflets, Newsletter, and packets, featured information about fallout. The layout, designed by a commercial artist sympathetic to the work of the SSRS, included a large sized copy of Jules Feiffer's cartoon about atomic bombs, "Boom." A large map of the United States indicated areas of interest from the point of view of fallout.

One of the other attractions of the Peace Fair was a series of "cracker barrel" sessions. At the session on the effect of nuclear war were SSRS members Charles Price and Norman Polster. Dr. Price is professor of chemistry at the University of Pennsylvania. Norman Polster has served as Fallout Survey Coordinator for the SSRS since June 1958.

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MINNESOTA COMMITTEE INVESTIGATES LOCAL ATOMIC PROBLEMS

Near the end of 1956 Dr. Libby described in some detail the reasons why the Upper Midwest should be one of the hottest spots in the world with respect to Sr-90 fallout. This, together with some background information on the radiobiological significance and ecology of Sr-90, was discussed in the twin Cities on radio,

television and in the press in the Spring of 1957. Part of this material found its way into the Congressional Record (page 7008-9, May 28, 1957) and into news reports in various parts of the country. By the time the 1957 Congressional hearings were held, the Twin Cities residents had some preparation for understanding the news commentaries which were forthcoming.

In July, 1957 Governor Freeman appointed the Minnesota Atomic Development Problems Committee to advise the State on the nature and magnitude of this problem, and to suggest steps the State could and should take. On this 25-man committee were representatives of industry, labor, insurance, law, conservation, agriculture, radiobiology, genetics, public health, engineering, radiology and physics—including two members of the National Academy of Sciences, 11 college and university professors, and the man who has recently replaced Dr. Libby on the Atomic Energy Commission. From October 1957 through June 1958 this group met monthly and some of its 11 subcommittees met much more frequently. Special meetings were held with representatives of AEC, State Board of Health, and groups of consultants (drawn largely from the faculty of the University of Minnesota).

The general topic was discussed before many local groups. At the University of Minnesota, a conference "National Security in the Nuclear Age" was held Feb. 17-21 (proceedings available from Center for International Relations and Area Studies, University of Minn.).

The Governor's Committee issued several reports. The first was instrumental in procuring funds for the determination of Sr-90 in water, milk, etc. The major publication "Basic Data Regarding Atomic Development Problems in Minnesota" (121 pages, available for \$2.00, Documents Division, 115 Capital Building, St. Paul, Minnesota) was issued in June 1958 and gives the reports of all 11 subcommittees. These ranged over the general fields of: the physical nature of radiation and atomic energy; power and industrial applications; biological significance and hazard evaluation; environmental, industrial and medical radiation; contamination of natural resources; present Minnesota laws; potential civil liability, in-

surance, and compensation problems; and area of Federal and State authority with regard to Atomic Energy. Included are data indicating that surface water in Minnesota exceeded maximum permissible levels for drinking water during the summer of 1957.

The Governor's Committee, working together with a Committee of the State Board of Health, also wrote a new radiological safety code for the State of Minnesota. Among its features is the requirement that a Company must submit construction plans, safety measures, and similar details to the State Board of Health and obtain its approval before it can operate an Atomic power reactor—much the same type of regulation which has proven successful in the past in regulating sewage disposal installations within the state.

Along with the Committee work some preliminary surveys of food contamination were attempted. On the basis of information relating to soil type and the fallout pattern in this area, it had been predicted that the southeast portion of the state should have the highest levels of radioactivity in foods while the northwest portion of the state would have the lowest levels. A preliminary grain survey, based only on crude count data, indicated that the exact reverse was true. In order to clarify this situation a number of wheat samples were sent to the Health and Safety Laboratory (AEC) in New York for analysis. These data (Minnesota Chemist 11: 6-13 (March-April, 1959)) show that at the end of 1958 wheat ranged from 111-123 SU. Milk at different points in the state ranged from 11-20 SU.

The final official action of this Committee was to request that the State establish a committee of this nature on a permanent basis. The Legislature rejected this.

Since that time some of the Committee members have succeeded in carrying out one additional project. With the cooperation of the University of Minnesota and the financial assistance of several Federal agencies, a symposium on "Radioisotopes in the Biosphere" will be held about the time this paper goes to press (the week of October 19-24).

W. O. Caster
University of Minnesota

SSRS MEMBER PFEIFFER STUDIES NORTH DAKOTA FALLOUT

My concern about Fallout in North Dakota was aroused in May 1958 when Dr. J. L. Kulp of Columbia University visited the University of North Dakota School of Medicine to arrange for the collection of human bone samples, which were to be analyzed for Sr-90. In the course of conversations with Dr. Kulp, I learned that the levels of Sr-90 in milk from Mandan, N.D. had reached over 30 s.u. in 1957, the highest figure that had yet been recorded anywhere.

Because this situation had not previously been reported to the public and because I felt that it was a matter of public concern, I arranged a meeting between Dr. Kulp and a representative of the local press. This resulted in a major news story carried throughout the state, and much concern was subsequently expressed to the State Health Dept. by many people. The director of this department then issued a statement saying there was no cause for concern.

As a biologist, I was interested in the problem of why Sr-90 in milk should be higher in N. Dakota than in other areas of the world. Consequently, I wrote to the director of the State Health Dept. requesting all available data on fallout in N. Dak. This resulted in a personal visit, from the director who emphasized that he wished the whole matter to be kept quiet, and he added that the Mandan creameries were looking for someone to sue. Subsequently, I received a letter from the director stating that all data on fallout would have to be obtained from federal agencies. To this date, I think I am safe in stating that the N. Dak. State Health Dept. has never released one iota of information on fallout to its people although the state constitution specifically states that this dept. should keep the public advised of contamination of food and water sources.

FURTHER INVESTIGATIONS

I then wrote to the AEC, the US Public Health Service, and the US Weather Bureau for all data on fallout in N. Dak. These agencies were very cooperative, although I should say that many of my requests for specific data were made through Senators William Langer or Hubert Humphrey, both of whom were of in-

valuable help in prying loose information. The data which I received proved to be very interesting and informative. They showed that during the summer of 1957 N.D. had been heavily contaminated with fallout from the nuclear tests in Nevada. U.S. Weather Bureau maps showed radioactive clouds moving directly from Nevada to N.D. where the Sr-90 was washed out by heavy local precipitation. Within a month after a particularly "dirty" shot (Diablo) the level of Sr-90 in milk from Mandan had increased about threefold. Because none of these facts had been made available to the public, I published a paper "Some Aspects of Radioactive Fallout in N. Dak." in the University of N.D. *Quarterly*, Fall 1958. This paper simply presented, in a form comprehensible to the layman, all the pertinent facts that had been sent to me by government scientists. It was widely quoted in the Minnesota and N.D. press, and I was asked to appear on TV by the N.D. Farmers' Union. It was severely criticized, however, by certain of my colleagues and superiors. The chief criticism was that I was not competent in the field of radiobiology, a point that I had made in my paper, but which was irrelevant because all the paper did was to correlate data and opinions of experts.

I was requested not to publish any more in this field, and was specifically forbidden to make available to the public any more data on fallout. Although the federal agencies were very helpful, none of the N.D. state agencies, including the university, ever took the responsibility of keeping informed or of publishing the facts on local fallout in N.D.

The state agencies did not appear to understand the importance of the local fallout data, but I was pleased to learn recently that the Joint Congressional Committee on Atomic Energy has seen fit to refer extensively to my paper in the Summary-Analysis of the recent fallout hearings, and that it will be published in full in the complete record.

Recent information concerning the results of the N.D. human bone analyses and Sr-90 contamination of N.D. wheat has been made available to me, but because of the restrictions cited above I was unable to release it to the public. I have just turned these new data over to the Congressman from N.D., and possibly he will inform the people of his state.

My experiences suggest that an individual with some slight background

in interpreting scientific reports can do considerable to keep the public informed, if he has contacts with the press or other media of communications, and if he will not be discouraged by critics who accuse him of being "out of his field". After all, one has only to be able to read to get much valuable data from official reports which would never be made available to the public without the intervention of someone who decided that the public should have the information. Since none of these fallout studies is classified, there is no logical reason why they cannot be made public whenever the reports or data are available.

E. W. Pfeiffer
Montana State University

DR. BAUER ADDRESSES

SSRS ANNUAL MEETING

(Continued from Page 1)

safe' or 'is a certain level of damage commensurate with the risk involved as measured against the advantages of continuing what you are doing,' this then is no longer scientific. This is a question which should reflect the moral and social attitudes of our nation as a whole."

POLSTER TO SPEAK TO ROTARY, GEORGE SCHOOL, AAUW

Norman E. Polster, appointed Fallout Survey Coordinator for the SSRS by the Council in June 1958, has been invited to speak to the Norristown Rotary Club on Dec. 17. His topic will be "Face the Facts on Fallout." On Dec. 4, he will address the student assembly of George School, a coeducational Friends boarding school near Newtown, Pa., on the same subject.

A panel is planned for the meeting of the American Association of University Women, with Norman Polster; Dr. Joseph Still, Director of Public Health Department of Bucks County; and possibly someone from Civilian Defense, presenting various aspects of the fallout problem.

Since being appointed to the position of Fallout Survey Coordinator, Norman Polster has collected all the data about fallout available to him, and has attempted to make it known

(Continued on Page 4, Col. 3)

FALLOUT

We live at a time when fallout measurements, standards, and the significance of these measurements, are in need of greater understanding. Born out of military expediency, growing out of international fear and tension to a thousand times the original magnitude, nuclear warfare can hardly be evaluated less than suicide, yet even the indicator—the evaluation of fallout—is not yet a science. Even so, it poses one of the most important moral questions of our time.

The last bomb was tested on November 3, 1958. Yet it is possible that in the U.S. each year that Sr-90 in the bones of children will cause 100 to 200 cases of leukemia for the next 70 years. This is one of the "biological costs" of our weapons testing to date. This make a mockery of "permissible doses" as safe, of a small percentage of background radiation as "insignificant", and of a Congressional Fallout Hearing's "excluding moral issues".

Our ignorance of the food contamination problem in peace time testing poses unanswered questions to futile civilian defense efforts with the bomb shelter "tombs". Where does the U.S. contamination of our food come from: the "world wide" fallout or Nevada tests? Who will tell us? Not the U.S. Atomic Energy Commission who allowed the Nevada tests; not the federal health agencies, unless they step up their program and analyze for Sr-90 in more than milk and a smattering of vegetables; not local health agencies, with their limited budgets and inadequate measuring techniques; not the commercial interests, with their fear of financial loss.

Why is this important? Because until all people know the magnitude of Sr-90 contamination due to limited atomic tests in continental United States (or Russia, or Australia) they may not be aroused to the urgency of ridding the world of nuclear armaments.

Our best newspapers give inadequate coverage to fallout. The mass media have not yet told the people of the world the straight facts about fallout.

Such periodicals as the *Reporter*, *I. F. Stone's Weekly*, *Liberation*, *Consumers Reports*, and such reporters as Edward Gamarekian of the *Washington Post*, or Walter Schneier for the *Reporter*, to mention a few, give proof of the excellent job which can be done when writers and publishers are aware of a responsibility in this field.

The U.S. now has a Radiation Council. The Food and Drug Administration is going to set its own "permissible levels". The U.S. Public Health Service is going to help local health groups make measurements. What about drinking water in Germany, Denmark, and Japan? In all these areas it has been stated that the radioactivity of drinking water is above "safe" levels. Here is where the SSRS, an international organization, can correlate data about fallout from all over the world. I get the U.S.P.H., AEC, and FDA reports. The Congressional Hearings report will soon be issued. SSRS people can ask for reports when ever some significant research has been disclosed. For instance the greatest area of food contamination in the U.S. is along the Canadian border, yet I have no data from Canada.

Elsewhere in this issue, Drs. Pfeiffer and Castor tell us what their ef-

forts have been. The report by Dr. Bauer on the work of the St. Louis Committee for Nuclear Information is included. Let us know what you have been doing.

Norman E. Polster
Southampton, Pa.

Fallout Suits Challenge

AEC's Right To Test

Two civil suits charge that the defendants, the Secretary of Defense and the members of the Atomic Energy Commission, have acted unlawfully and that the Atomic Energy Act is unconstitutional.

SSRS members who heard Francis Heisler, one of the attorneys involved in the Fallout Suits, at the 1958 Annual Meeting, have followed the progress of these suits with great interest.

For those interested in the Fallout Suits, contact address is: The Fallout Suits, 122 No. Hudson Ave., Pasadena, California.

POLSTER TO SPEAK TO ROTARY, GEORGE SCHOOL, AAUW

(Continued from Page 3)

to the layman in terms he can understand.

He has spoken to many different groups, including Rotaries, Kiwanis, P.T.A.'s, church groups, women's clubs, technical societies, and schools. Several time he has been interviewed on radio and television.

Norman Polster attended the Congressional hearings on Fallout for the SSRS.

Correspondence from individuals and groups interested in fallout help Norman Polster to keep aware of developments in this field.

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